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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,666	03/11/2004	Patrick J. Novak	SAN.011	6301
26984	7590	05/12/2005		
WILLIAM L. LONDON 3010 LEE AVENUE P.O. BOX 152 SANFORD, NC 27330			EXAMINER PATEL, PARESH H	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,666

Applicant(s)

NOVAK ET AL.

Examiner

Paresh Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004 and 07 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 10-16 is/are rejected.
- 7) ☒ Claim(s) 5-9 and 17-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>05/04</u> <u>3/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. Claims 5-9 and 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The following is a statement of reasons for the indication of allowable subject matter:

No prior art has been found to meet the limitations of claims 5-9 calling for a electrical power probe comprising a power probe control unit, which switches a power switching circuitry to connect the positive input source voltage to a conductive wand tip through cable if the first switch is in an activated state; and switches the power switching circuitry to connect the negative input source voltage to the conductive wand tip through cable if the second switch is in an activated state, as further defined at claim 5.

No prior art has been found to meet the limitations of claims 17-19 calling for a method of operating an electrical power probe comprising switching the positive source voltage to the cable if the first switch is activated; and switching the negative source voltage to the cable if the second switch is activated, as further defined at claim 17.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --An Electrical Power Probe for Testing and Supplying Power to an Electrical Wirings and Electronics--.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1, 2, 4, 10 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Croyle et al. (US 5583801).

Regarding claims 1 and 16, Croyle et al. (hereafter Croyle) in fig. 1-3 discloses an electrical power probe [fig. 1] comprising:

a power probe control unit [10] adapted to connect to a direct current (DC) power source [battery, see lines 65-67 of column 5 and 1-2 of column 6] and receive an input source voltage from the DC power source, said power probe control unit comprising power switching circuitry [61-65 with 100] controlling the switching of the input source voltage to a cable [connection between 80 and 32, see fig. 1]; and

a power probe wand [80] including a conductive wand tip [34] and a user controlled switch device [81-85], said wand tip electrically connected to the power switching circuitry through the cable [see fig. 1], said power probe control unit adapted to send a query message [lines 11-19 of column 6] to the power probe wand,

said power probe wand adapted to send a response [lines 11-19 of column 6] to the power probe control unit in response to the query message, said response indicating the position of the user [lines 54-55 of column 5 and lines 38-43 of column 7] controlled switch device,

said power probe control unit adapted to selectably switch the power switching circuitry based on the position [lines 37-50 of column 9] of the user controlled switch device.

Regarding claim 2, Croyle discloses the electrical power probe of claim 1 wherein:

said power probe control unit is adapted to connect to positive and negative input source voltages of the DC power source [terminals of battery to 14]; and

said power switching circuitry controls the switching of either the positive input source voltage or the negative input source voltage to the cable[using 170 of 100].

Regarding claim 4, Croyle discloses the electrical power probe of claim 2 wherein:

said user controlled switch device comprises first and second switches [81-85];

said query message requests the position of both the first and second switches; and said response indicates the position of both the first and second switches [lines 54-55 of column 5 and lines 38-43 of column 7].

Regarding claim 10, Croyle discloses the electrical power probe of claim 1 wherein the power switching circuitry comprises solid state devices [for example CPU 120].

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Regarding claim 12, Croyle discloses the electrical power probe of claim 1 wherein the power switching circuitry is electrically isolated from a load current delivered by wand tip [during testing].

Regarding claim 13, Croyle discloses the electrical power probe of claim 1 wherein:

said power probe control unit is adapted to connect to positive and negative input source voltages of the DC power source; and

when the input source voltage is not switched to the cable, the power probe control unit monitors voltage potential of the wand tip through the cable and determines if the voltage potential of the wand tip is substantially equal either the positive or negative input source voltages [during testing, see lines 52-57 of column 6].

Regarding claim 14, Croyle discloses the electrical power probe of claim 13 wherein, if the power probe control unit determines the voltage potential of the wand tip is substantially equal to the positive input source voltage, the power probe control unit is adapted to transmit a first command to the power probe wand instructing the power probe wand to illuminate a first indicator [on 50 during testing, see lines 52-57 of column 6].

Regarding claim 15, Croyle discloses the electrical power probe of claim 14 wherein, if the power probe control unit determines the voltage potential of the wand tip is substantially equal to the negative input source voltage, the power probe control unit is adapted to transmit a second command to the power probe wand instructing the

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power probe wand to illuminate a second indicator [on 50 during testing, see lines 52-57 of column 6].

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Croyle as applied to claims 2 and 1 above, and further in view of Orton (US 5107387).

Regarding claim 3, Croyle discloses all the elements including the electrical power probe of claim 2 wherein said power probe control unit further comprises a positive input terminal [terminal of 14 for battery] adapted to connect to the positive input source voltage, a negative input terminal [another terminal of 14 for the battery] adapted to connect to the negative input source voltage.

Croyle is silent about a reverse polarity protection fuse, and reverse polarity protection circuitry adapted to clear the reverse polarity protection fuse if the positive input terminal is connected to the negative input source voltage and the negative input terminal is connected to the positive input source voltage.

Orton at lines 27-35 of column 6 discloses a **fuse** to protect controller components from **reverse polarity** battery connection with out introducing an undesired voltage drop between the battery and the motor. Therefore, Orton discloses a reverse polarity protection fuse, and reverse polarity protection circuitry adapted to clear the reverse polarity protection fuse if the positive input terminal is connected to the negative input source voltage and the negative input terminal is connected to the positive input source voltage. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify electrical power probe of Croyle by adding reverse polarity protection circuitry adapted to clear the reverse polarity protection fuse as taught by Orton, in order to protect power probe control unit from damage in the event when battery polarity are reversed (see abstract of Orton).

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Croyle as applied to claims 10 and 1 above, and further in view of Orton.

Regarding claim 11, Croyle discloses all the elements of the electrical power probe of claim 10 except for is silent about each solid state device comprises at least one high current field effect transistor. Orton discloses solid state device [23] comprises at least one high current field effect transistor [MOSFET, SEE LINES 1-12 OF COLUMN 4] to vary the amount of power coupled from battery to the motor to affect the speed. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify electrical power probe of Croyle to add high current field effect transistor as taught by Orton to serve as to control the output [see lines 1-12 of column 4].

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Perry (US 4807277) discloses the fuses 5 to a reverse polarity and surge protection circuit 10.

Winkler (US 4510431) discloses fuse 22 is used to protect the circuit of the charger in case something goes wrong, also for protection from reverse polarity.

Therefore, reverse polarity fuse are well known in the electrical circuit protection art, in order to prevent damage to the electrical circuit(s) and the load or DUT from reverse polarity supply from the battery or DC supply.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 571-272-1968. The examiner can normally be reached on 8:00 to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private.PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



May 10, 2005

Paresh Patel
Primary Examiner
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